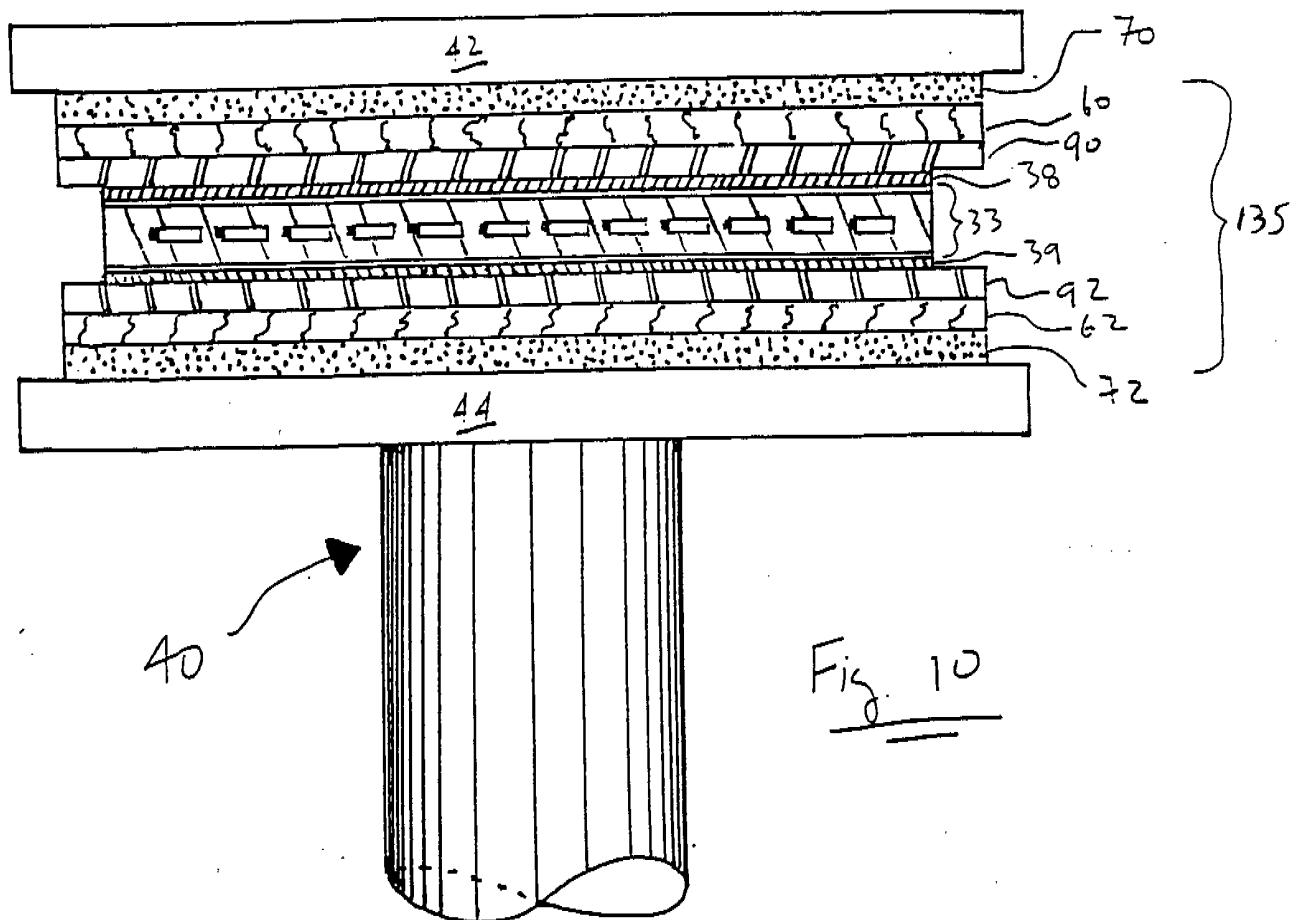
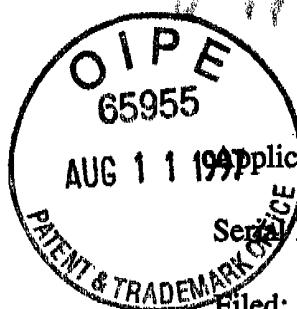


10/727789

COPY





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Keith Leighton
Serial No: 08/727,789
Filed: 10/07/96
Examiner: *#1 1/2 U. Day*
Art Unit: 1315
Date: August 11, 1997
9/10/97

For: RADIO FREQUENCY IDENTIFICATION CARD AND HOT LAMINATION PROCESS FOR THE MANUFACTURE OF RADIO FREQUENCY IDENTIFICATION CARDS

Commissioner of Patents and Trademarks
Washington, D. C. 20231

TRANSMITTAL

Transmitted herewith:

- 1) Information Disclosure Statement
- 2) PTO Form 1149 and cited references
- 3) Acknowledgement of Receipt/Return Card

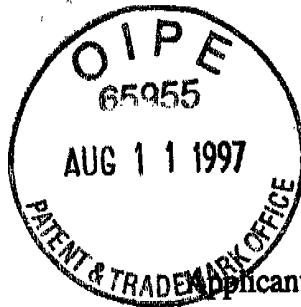
OLDHAM & OLDHAM CO., L.P.A.

By *Mark A. Watkins*
Mark A. Watkins, Esq.
Reg. No.: 33,813

CERTIFICATE OF MAILING (37 CFR 1.10)

I hereby certify that this paper is being deposited with the United States Postal Service on this date August 11, 1997 in an envelope as "Express Mail Post Office to Address" Mailing No. EM449841381US addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Mark A. Watkins
Mark A. Watkins, Esq.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: **Keith Leighton** Examiner:
 Serial No: **08/727,789** Art Unit: **1315**
 Filed: **10/07/96** Date: **August 11, 1997**
 For: **RADIO FREQUENCY IDENTIFICATION CARD AND HOT LAMINATION PROCESS FOR THE MANUFACTURE OF RADIO FREQUENCY IDENTIFICATION CARDS**

Commissioner of Patents and Trademarks
 Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

This Information Disclosure Statement is believed to be filed prior to a first Patent Office Action on the merits and is therefore thought timely.

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made (37 CFR §1.56(g)), an admission that the information cited is, or is considered to be, material to patentability or that no other material information exists.

The filing of this Information Disclosure Statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13, at 25.

This Information Disclosure Statement is made to comply with the duty of candor imposed on all individuals associated with the filing or prosecution of this application, as defined by 37 CFR §1.56(c).

A list of the patents and other cited references cited by the applicant are enclosed on one sheet of Form PTO-1449 which is attached and made a part hereof. Copies of the references have been enclosed. The relevance of each cited reference is thought to have been sufficiently discussed in the prosecution of the parent applications and, therefore, has

not been recited herein. Should the Examiner desire copies of the references, Applicant's Attorney would readily supply the same.

This Information Disclosure Statement is based on information contained in the undersigned attorney file as of the date of this statement and is inclusive of the best information known to the undersigned at that date.

The Examiner is kindly requested to consider the Information Disclosure Statement in addition to any references identified by the Examiner as a result of his independent search and examination.

Respectfully submitted,

OLDHAM & OLDHAM CO., LPA

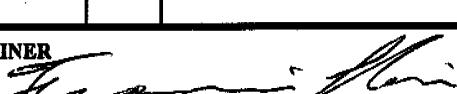


Mark A. Watkins
Registration 33,813

MAW/clj

Twin Oaks Estate
1225 West Market Street
Akron, OH 44313-7188
(330) 864-5550

Attorney Docket: 6014-1

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i> 65955 AUG 11 1997				Docket Number (Optional) 6014	Application Number 08/727,789		
				Applicant(s) Keith Leighton	Filing Date 10/07/96	Group Art Unit 1315-1733	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>FJL</i>	A	5,208,460	5/4/93	Uenishi et al.			
	B	4,980,802	12/25/90	Champagne et al.			
	C	5,097,117	3/17/92	Champagne et al.			
	D	5,438,750	8/8/95	Venambre			
	E	5,567,362	10/22/96	Grun			
	F	4,795,898	1/3/89	Bernstein et al.			
	G	4,701,236	10/20/87	Vieilledent			
	H	4,792,843	12/20/88	Haghiri-Tehrani et al.			
	I	5,173,840	12/22/92	Kodai et al.			
	J	5,412,192	5/2/95	Hoss			
<i>FJL</i>	K	5,268,699	12/7/93	Laute et al.			
FOREIGN PATENT DOCUMENTS							
REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER 		DATE CONSIDERED <i>9 Apr, 98</i>					
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/727,789	10/07/96	LEIGHTON	K 6014-1

STEVEN M HAAS
OLDHAM & OLDHAM CO
1225 WEST MARKET STREET
AKRON OH 44313-7188

13M1/0908

EXAMINER	
LORIN, F	
ART UNIT	PAPER NUMBER
1301	

DATE MAILED: 09/08/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/727,789	Applicant(s) Leighton
	Examiner Francis J. Lorin	Group Art Unit 1301
<p><input type="checkbox"/> Responsive to communication(s) filed on _____.</p> <p><input type="checkbox"/> This action is FINAL.</p> <p><input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11; 453 O.G. 213.</p> <p>A shortened statutory period for response to this action is set to expire <u>3</u> month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).</p>		
<p>Disposition of Claims</p> <p><input checked="" type="checkbox"/> Claim(s) <u>1-22</u> is/are pending in the application.</p> <p>Of the above, claim(s) <u>20-22</u> is/are withdrawn from consideration.</p> <p><input type="checkbox"/> Claim(s) _____ is/are allowed.</p> <p><input checked="" type="checkbox"/> Claim(s) <u>1-19</u> is/are rejected.</p> <p><input type="checkbox"/> Claim(s) _____ is/are objected to.</p> <p><input type="checkbox"/> Claims _____ are subject to restriction or election requirement.</p>		
<p>Application Papers</p> <p><input type="checkbox"/> See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.</p> <p><input type="checkbox"/> The drawing(s) filed on _____ is/are objected to by the Examiner.</p> <p><input type="checkbox"/> The proposed drawing correction, filed on _____ is <input type="checkbox"/> approved <input type="checkbox"/> disapproved.</p> <p><input type="checkbox"/> The specification is objected to by the Examiner.</p> <p><input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>		
<p>Priority under 35 U.S.C. § 119</p> <p><input type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).</p> <p><input type="checkbox"/> All <input type="checkbox"/> Some* <input type="checkbox"/> None of the CERTIFIED copies of the priority documents have been received.</p> <p><input type="checkbox"/> received in Application No. (Series Code/Serial Number) _____.</p> <p><input type="checkbox"/> received in this national stage application from the International Bureau (PCT Rule 17.2(a)).</p> <p>*Certified copies not received: _____.</p> <p><input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).</p>		
<p>Attachment(s)</p> <p><input checked="" type="checkbox"/> Notice of References Cited, PTO-892</p> <p><input type="checkbox"/> Information Disclosure Statement(s), PTO-1449, Paper No(s). _____</p> <p><input type="checkbox"/> Interview Summary, PTO-413</p> <p><input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review, PTO-948</p> <p><input type="checkbox"/> Notice of Informal Patent Application, PTO-152</p>		
--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---		

Serial Number: 08/727,789

Page 2

Art Unit: 1301

DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-19, drawn to a method, classified in class 156, subclass 250.
 - II. Claims 20-22, drawn to an article, classified in class 428, subclass 68.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the article can be made by molding rather than laminating.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Mark Watkins (with examiner William Watkins) on July 30, 1997, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-19. Affirmation of this election must be made by applicant in responding to this Office action. Claims 20-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Serial Number: 08/727,789

Page 3

Art Unit: 1301

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haghiri-Tehrani et al (U.S. Patent No. 4,450,024).

As to sole pending independent claim 1, the reference teaches a lamination process for making an electronic card, see the abstract. Although the reference does not specify the application of a printing layer in the manner recited in the claim, absent any evidence to the contrary, it would have been obvious to one of ordinary skill in the art to apply any layer to those already present in the card during lamination, the application of a printed layer being considered exemplary.

As to the dependent claims regarding the various sequential pressures and other process parameters, these are considered within the purview of one of ordinary skill in the art and would depend upon the type of material being laminated. As to the recitations in the dependent claims regarding various types of materials, these are considered within the purview of one of ordinary skill in the art.

Serial Number: 08/727,789

Page 4

Art Unit: 1301

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both Yanaka et al (U.S. Patent No. 5,067,008) and Terauchi (U.S. Patent No. 5,396,650) teach methods for making IC cards.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis J. Lorin whose telephone number is (703) 308-2061.

Any inquiry of a general nature can be directed to the Group receptionist at (703) 308-0651.

The FAX number for Group art unit 1301 is (703) 305-7115.



FRANCIS J. LORIN
PATENT EXAMINER
ART UNIT 1301

Francis J. Lorin
September 2, 1997

Notice of References Cited			Application No.	Applicant(s)		
			08/727,789	Leighton		
			Examiner	Group Art Unit		
			Francis J. Lorin	4301	Page 1 of 1	
<i>1733</i>						
U.S. PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	NAME		CLASS	SUBCLASS
A	4,450,024	5/1984	Haghiri-Tehrani et al		156	108
B	5,067,008	11/1991	Yanaka et al		357	81
C	5,396,650	3/1995	Terauchi		455	38.2
D						
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FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
N						
O						
P						
Q						
R						
S						
T						
NON-PATENT DOCUMENTS						
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)				DATE	
U						
V						
W						
X						

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)
(Small Entity)

Docket No.
 6014-1

In Re Application Of: Keith Leighton
 JAN 12 1998

#31U.004
 27/08

Serial No.
 08/727,789

Filing Date
 10/07/96

Examiner
 Lorin, F.

Group Art Unit
 1301

Invention: **RADIO FREQUENCY IDENTIFICATION CARD AND HOT LAMINATION PROCESS FOR THE
 MANUFACTURE OF RADIO FREQUENCY IDENTIFICATION CARDS**

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a response to the Office Action of 09/08/97 above-identified application.

Date

The requested extension is as follows (check time period desired):

One month Two months Three months Four months Five months

from: 12/08/97 until: 01/08/98
Date *Date*

A verified statement of small entity status as a small entity under 37 CFR 1.27:

is enclosed.
 has already been filed in this application.

The fee for the extension of time is \$55 and is to be paid as follows:

A check in the amount of the fee is enclosed.
 The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. 15-0450
 A duplicate copy of this sheet is enclosed.
 If an additional extension of time is required, please consider this a petition therefor and charge any additional fees which may be required to Deposit Account No. 15-0450 A duplicate copy of this sheet is enclosed.

01/20/1998 DTHOHAS 0000051 08727789
 01 FEB:215 Mark A. Watkins
Signature

Dated: January 8, 1998

Mark A. Watkins, Reg. No. 33,813
 Oldham & Oldham Co., LPA
 1225 West Market Street
 Akron, Ohio 44313-7188

I certify that this document and fee is being deposited on January 8, 1998 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

Cherrie L. Jacofsky
Signature of Person Mailing Correspondence

Cherrie L. Jacofsky

Typed or Printed Name of Person Mailing Correspondence

CC:

AMENDMENT TRANSMITTAL LETTER (Small Entity)

Docket No.

6014-1

Applicant(s): Keith Leighton

Serial No.
08/727,789JAN 12 1996
PATENT & TRADEMARK OFFICEFiling Date
10/07/96Examiner
Lorin, F.Group Art Unit
1301Invention: RADIO FREQUENCY IDENTIFICATION CARD AND HOT LAMINATION PROCESS FOR THE
MANUFACTURE OF RADIO FREQUENCY IDENTIFICATION CARDS

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Transmitted herewith is an amendment in the above-identified application.

Small Entity status of this application has been established under 37 CFR 1.27 by a verified statement previously submitted.

A verified statement to establish Small Entity status under 37 CFR 1.27 is enclosed.

The fee has been calculated and is transmitted as shown below.

CLAIMS AS AMENDED

	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST # PREV. PAID FOR	NUMBER EXTRA CLAIMS PRESENT	RATE	ADDITIONAL FEE
TOTAL CLAIMS	22	22 =	0	x \$11.00	\$0.00
INDEP. CLAIMS	3	3 =	0	x \$41.00	\$0.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT					\$0.00

No additional fee is required for amendment.

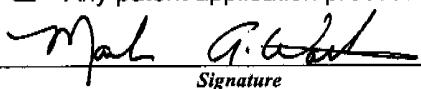
Please charge Deposit Account No. in the amount of
A duplicate copy of this sheet is enclosed.

A check in the amount of to cover the filing fee is enclosed.

The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No.
A duplicate copy of this sheet is enclosed.

Any additional filing fees required under 37 C.F.R. 1.16.

Any patent application processing fees under 37 CFR 1.17.

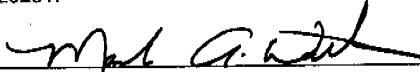


Dated: January 8, 1998

Signature

Mark A. Watkins, Reg. No. 33,813
Oldham & Oldham Co., LPA
1225 West Market Street
Akron, Ohio 44313-7188

I certify that this document and fee is being deposited on 1-8-98 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

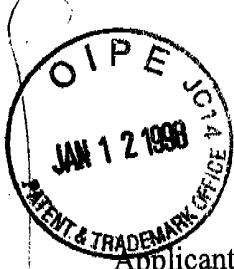


Signature of Person Mailing Correspondence



Typed or Printed Name of Person Mailing Correspondence

CC:



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Keith Leighton Examiner: Lorin, F.

Serial No. 08/727,789 Art Unit: 1301

Filed: 10/07/96 Date: January 8, 1998

Title: RADIO FREQUENCY IDENTIFICATION CARD AND HOT LAMINATION PROCESS FOR THE MANUFACTURE OF RADIO FREQUENCY IDENTIFICATION CARDS

Commissioner of Patents and Trademarks
Washington, D.C. 20231

AMENDMENT

Dear Sir:

In response to the Patent and Trademark Office Action dated September 8, 1997, please amend the above-identified application as follows:

In the claims:

Please delete the following claims: 6, 9, 10, and 19.

Please amend the following claims:

1.(Amended) A [hot lamination] process for incorporating at least one electronic element in the manufacture of a plastic card, [said process] comprising the steps of:

- (a) providing first and second plastic core sheets;
- (b) positioning said at least one electronic element in the absence of a non-electronic carrier directly between said first and second plastic core sheets to form a [layered] core, said plastic core sheets defining a pair of inner and outer surfaces of said core;
- (c) positioning said core in a laminator apparatus, and subjecting said core to a heat and pressure cycle, said heat and pressure cycle comprising the steps of:
 - (i) heating said core [in said laminator,] for a first period of time;

(ii) [thereafter] applying [ram] a first pressure to said core for a second period of time such that said at least one electronic element is encapsulated [in] by said core[,];

(iii) [and thereafter] cooling said core [in conjunction with laminator ram] while applying a second pressure [being applied] to said core [, said core including an upper and lower surfaces].

(d) [printing on] coating at least one of said [upper and lower] outer surfaces of said core [such that] with a layer of ink [is applied to said at least one upper and lower surface of said core]; and

(e) [positioning said core in a laminator apparatus with a layer of overlaminant film on at least one of said upper and lower surfaces of said core and laminating said] applying a layer of overlaminant film to at least one of said outer surfaces of said core [in said laminator to thereby form a sheet of plastic card stock; and,

(f) cutting at least one card from said sheet of plastic card stock].

2. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said [step (c) of positioning said core in a] laminator apparatus [is carried out by positioning said core between] has first and second laminating plates, at least one of said first and second laminating plates having a matte finish [to provide at least one of said upper and lower core surfaces with a corresponding] for creating a textured surface on at least one of said outer surfaces of said core.

3. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 2, wherein each of said first and second laminating plates [includes] has a matte finish [to provide both of said upper and lower surfaces of said core with a correspondingly] for creating said textured surface on both of said outer surfaces of said core.

4. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said first and second plastic core

sheets are made from a material selected from the group consisting of polyvinyl chloride, polyester, and acrylonitrile-butadiene-styrene, [wherein] each of said sheets [has] having a thickness in the range of 0.007 [inches] to 0.024 [inches] inch.

5. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 4, wherein said first and second plastic core sheets have a thickness of approximately 0.0125 inch [inches].

6. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein [said step (c5) is carried out with a ram] said second pressure [that] is greater than [the ram] said first pressure [utilized in step (c4)].

7. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 7, wherein [the laminator] said second pressure [utilized in step (c5)] is at least approximately 25% greater than [the ram] said first pressure [utilized in step (c4)].

8. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim [6] 1, wherein said [step (c3) is carried out by heating said] core is heated in step (c)(i) to a temperature in the range of [300] 275°F to [370] 400°F and said first period of time is [for] at least five (5) [5 to 10] minutes.

9. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim [11] 1, wherein said [step (c4) is carried out by increasing said laminator ram] first pressure [to a pressure] is approximately [in the range of 700 p.s.i. to] 1000 p.s.i. and said second period of time is [for] at least 10 minutes.

10. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said step (d) is carried out

utilizing a printing press.

14. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said step (d) is carried out utilizing a coating technique [techniques] selected from the group consisting of silk screen printing, offset printing, letterpress printing, screen printing, roller coating, spray printing, and litho-printing.

15. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said step (e) [is carried out by positioning said core between first and second sheets of overlaminant film such that a layer of overlaminant film is laminated to both said upper and lower surfaces of said core] of applying a layer of overlaminant film comprises the further steps of:

(a) positioning an overlaminant film on at least one ink coated surface of said core;
(b) subjecting said core to a second heat and pressure cycle comprising the steps of:
(i) heating said core to a temperature between approximately 175°F to 300°F for approximately 10 to 25 minutes;
(ii) applying approximately 1000 p.s.i. pressure to said core; and
(iii) cooling said core to a temperature in the range of approximately 40°F to 65°F for approximately 10 to 25 minutes.

16. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic element is a micro-chip and an associated wire antenna.

17. (Amended) [A hot lamination] The process for incorporating at least one electronic element in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic element is a micro-chip and an associated circuit board antenna.

18. (Amended) [A hot lamination] The process for incorporating at least one electronic element

A3
 in the manufacture of a plastic card as recited in claim 1, wherein said at least one electronic element is a read/write integrated chip and an associated antenna.

A Kindly add the following new claims:

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23. A hot lamination process for the manufacture of plastic cards, said process comprising the steps of:

- (a) providing first and second plastic core sheets;
- (b) positioning at least one electronic element in the absence of a non-electronic carrier directly between said first and second plastic core sheets to form a layered core;
- (c) positioning said core in a laminator apparatus, and subjecting said core to a heat and pressure cycle, said heat and pressure cycle comprising the steps of:
 - (i) heating said core in said laminator, in the presence of a minimal first ram pressure, to a temperature which causes controlled flow of said plastic which makes up said first and second plastic core sheets;
 - (ii) applying a second pressure uniformly across said core for encapsulating said at least one electronic element within said controlled flow plastic;
 - (iii) subsequently cooling said core in conjunction with the concurrent application of a third pressure uniformly across said core, said core including and upper and lower surfaces;
- (d) printing on at least one of said upper and lower surfaces of said core such that a layer of ink is applied to at least a portion of said at least one upper and lower surface of said core.

17
24. The method as recited in claim 23 wherein said first and second core layers are devoid of any appreciable cutouts.

REMARKS

The Examiner has rejected each of the pending claims, 1-19, under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,450,024 ("the '024 patent) to Haghiri-Tehrani. This rejection is respectfully traversed.

From the Examiner's rejection, it is apparent that the Examiner claims to have found each

of the elements of applicant's claimed invention anticipated by the '024 patent with the exception of the printing step, which the Examiner finds obvious under section 103(a). Applicant maintains that the '024 patent does not teach the process of the present application even in the absence of the printing step.

The '024 patent claims a lamination process for making an electronic card which protects the electronic element of the card by first placing it in a recess formed within a card layer so as to avoid damage to the electronic element from localized pressure applied in the lamination process. The patent then requires that a "buffer zone" be present within the recess. Even the broadest of claims of the '024 patent require a recess and a buffer zone, for and protecting the electronic element. These are required by the '024 invention in order to enable the card assembly to be subjected to a full laminating pressure.

No such protective elements are desired or necessary to the invention of the present application. Further, the invention taught by the '024 patent requires that the electronic element also be placed in a protective carrier disk (6), which is subsequently located within the recess.

The controlled use of a heat and pressure cycle of the present invention eliminates the requirement of both a protective carrier disk for the electronic element and/or a recess or other buffer zone formed in one or more of the card layers for carrying and protecting the electronic element. The process of the present invention allows the electronics-containing core to be subjected to the full laminating pressure without use of a recess in a card layer. Unlike anything shown in the prior art, the electronic unit is placed directly between two (2) plastic sheets. Admittedly, the '024 patent does make reference to card forming processes which vary pressure with temperature. *'024 Patent, col.6, ln. 30-46.* However, there is nothing in the '024 patent which suggests the heat and pressure cycle of the present invention. The '024 patent merely discusses the variation of pressure with temperature, it does not suggest a sequence of steps or the duration of steps which might be used to encapsulate an electronic element by a plastic card. The '024 patent does not discuss a cooling step, nor does it propose a solution to the relative pressures to be applied in the steps of the cycle.

The Examiner correctly notes that it is well within the purview of one of ordinary skill in the art to vary temperature with the type of material being laminated. However, the present invention involves more than controlling pressure as a function of temperature; the present

invention claims a coordinated heat and pressure cycle which uses multiple temperatures, pressures and time periods for a single material. The dependent claims include limitations on the ratio of pressures to be applied at various stages of the process as well as specific temperature ranges and time periods for each step. Claim 15 includes a further heat and pressure cycle to be used in the overlamination step, a step which doesn't involve protecting the electronic element.

The amendments made to the claims have not been made to avoid the 103(a) rejection. It is believed that the claims as originally submitted are unobvious over the '024 patent. The amendments were made to clarify claim language and to insure consistent language throughout both the specification and the claims.

It is believed that this application as amended is in condition for allowance. Such action is respectfully requested.

Respectfully submitted,
OLDHAM & OLDHAM CO., LPA



Mark A. Watkins, Esq.
Registration No. 33, 813

Twin Oaks Estate
1225 West Market Street
Akron, Ohio 44313-7188
(330)864-5550

Attorney Docket No. 6014-1

Notice of Allowability	Application No.	Applicant(s)
	08/727,789	Leighton
	Examiner	Group Art Unit
	Francis J. Lorin	1733

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

This communication is responsive to amendment filed 1/12/98

The allowed claim(s) is/are 1-5, 7, 8, 11-18, 23, and 24

The drawings filed on _____ are acceptable. B
F-13-78
FJL

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

Applicant MUST submit NEW FORMAL DRAWINGS

because the originally filed drawings were declared by applicant to be informal.

including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____.

including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s). 1
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152
- Interview Summary, PTO-413
- Examiner's Amendment/Comment
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- Examiner's Statement of Reasons for Allowance

Serial Number: 08/727,789

Page 2

Art Unit: 1733

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

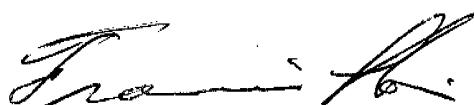
Claims 20-22 have been canceled without prejudice as being directed to a non-elected invention.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis J. Lorin whose telephone number is (703) 308-2061.

Any inquiry of a general nature can be directed to the Group receptionist at (703) 308-0651.

The FAX number for any official papers (i.e., papers that will be entered as part of the file wrapper) for Group Art Unit 1733 is (703) 305-3601.

Any unofficial papers (e.g., proposed amendments) can be submitted by FAX using 305-7115.



FRANCIS J. LORIN
PRIMARY EXAMINER
ART UNIT 1733

Francis J. Lorin
April 13, 1998



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: Box ISSUE FEE
ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

TM61/0434

STEVEN M HAAS
OLDHAM & OLDHAM CO
1225 WEST MARKET STREET
AKRON OH 44313-7188

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/727,789	10/07/96	017	LORIN, F	1733 04/14/96
First Named Applicant	LEIGHTON, KEITH R.			

TITLE OF INVENTION RADIO FREQUENCY IDENTIFICATION CARD AND HOT LAMINATING PROCESS FOR THE MANUFACTURE OF RADIO FREQUENCY IDENTIFICATION CARDS

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEES DUE	DATE DUE
1 6014-1	156-298,000	C91	UTILITY	YES	\$650.00	02/14/96

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.
If the SMALL ENTITY is shown as 'yes', verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

II. Part B of this notice should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "6b" of Part B should be completed.

III. All communications regarding this application must give application number and batch number.
Please direct all communication prior to issuance to Box ISSUE FEE unless advised to the contrary.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

IMPORTANT REMINDER: Patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PAR 1 — ISSUE FEE TRANSMITTAL

MAILING INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE. Blocks 2 through 6 should be completed where appropriate. All further correspondence including the issue Fee Receipt, the Patent, advance orders and notification of maintenance fees will be mailed to addresses entered in Block 1 unless you direct otherwise, by: (a) specifying a new correspondence address in Block 3 below; or (b) providing the PTO with a separate "FEE ADDRESS" for maintenance fee notifications with the payment of issue Fee or thereafter. See reverse for Certificate of Mailing, below.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, D.C. 20231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Issue Fee, Assistant Commissioner for Patents, Washington D.C. 20231

1. CORRESPONDENCE ADDRESS

STEVEN M HAMER 36
10100 BUCKHORN DR
CAMPBELL, OH 44322-1000
AKRON, OH 44313-7193

1M6170414

JUL 06 1998

2. INVENTOR(S) ADDRESS CHANGE (Complete only if there is a change)

INVENTOR'S NAME

Street Address

City, State and Zip Code

CO-INVENTOR'S NAME

Street Address

City, State and Zip Code

 Check if additional changes are enclosed

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/727,787	10/07/96	017	LORIN, F	1733 04/14/98

First Name
Applicant LEIGHTON, KEITH R.

TITLE OF INVENTION: RADIO FREQUENCY IDENTIFICATION CARD AND HOT LAMINATION PROCESS FOR THE MANUFACTURE OF RADIO FREQUENCY IDENTIFICATION CARDS

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEES DUE	DATE DUE
07/14/96 6014-1	156-298.000	091	UTILITY	YES	\$660.00	07/14/98

3. Correspondence address change (Complete only if there is a change)

4. For printing on the patent front page, list the names of not more than 3 registered patent attorneys or agents OR, alternatively, the name of a firm having as a member a registered attorney or agent. If no name is listed, no name will be printed.

1 Oldham &
2 Oldham Co., L.P.A.
3

5. ASSIGNMENT DATA TO BE PRINTED ON THE PATENT (print or type)

(1) NAME OF ASSIGNEE:

(2) ADDRESS: (CITY & STATE OR COUNTRY)

A. This application is NOT assigned.

Assignment previously submitted to the Patent and Trademark Office.

Assignment is being submitted under separate cover. Assignment should be directed to Box ASSIGNMENTS.

PLEASE NOTE: Unless an assignee is identified in Block 5, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

6a. The following fees are enclosed:

Issue Fee Advance Order - # of Copies 10

6b. The following fees should be charged to:

DEPOSIT ACCOUNT NUMBER 15-0450

(ENCLOSE A COPY OF THIS FORM)

Issue Fee Advance Order - # of Copies

Any Deficiencies in Enclosed Fees

The COMMISSIONER OF PATENTS AND TRADEMARKS is requested to apply the Issue Fee to the application identified above.

(Authorized Signature) *Mark A. Watkins* (Date) *7-2-98*
Mark A. Watkins, Esq.

NOTE: The Issue Fee will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the Patent and Trademark Office.

Certificate of Mailing

Note: If this certificate of mailing is used, it can be used to transmit the Issue Fee. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Box ISSUE FEE

Assistant Commissioner for Patents
Washington, D.C. 20231

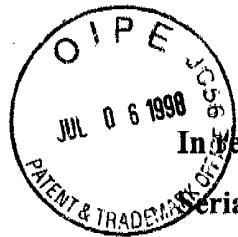
on: July 2, 1998 (Date) 07/13/1998 ASEA/FT 0000001 08727789
 Teri L. Naehring (Name of person making deposit)
 Teri L. Naehring (Signature) 01 FC:24E
 July 2, 1998 (Date) 02 FC:561
 660.00 DP
 30.00 DP

① KC
PATENT

17N1

DOCKET NO: 6014-1 B

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In the application of: Keith Leighton

Date: July 1, 1998

Serial No.: 08/727,789

Group No.: 1733

Filed: 10/07/96

Examiner: Lorin, F.

For: RADIO FREQUENCY IDENTIFICATION CARD AND HOT LAMINATION
PROCESS FOR THE MANUFACTURE OF RADIO FREQUENCY
IDENTIFICATION CARDS

**Commissioner of Patents & Trademarks
Washington, D.C. 20231**

ATTENTION: Official Draftsman

TRANSMITTAL OF FORMAL DRAWING(S) IN RESPONSE TO NOTICE OF ALLOWANCE

Attached please find the formal drawings for this application.

Reg. No.: 33,813

Signature of Attorney

Tel. No.: (330) 864-5550

Mark A. Watkins
(type or print name of signer)

1225 West Market Street

P. O. Address

Akron, OH 44313-7188

Note: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (in any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm (5/8 inch) down from the top of the page." 37 CFR §1.84(c).

CERTIFICATE OF MAILING (37 CFR 1.8)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Mark A. Watkins
(type or print name of person signing)

Date: June 18, 1998

(Signature of person mailing paper)

5817209
10/6

DOCKET NO.: ABTT-0133/B920431

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Vladimir M. Segal

Serial No.: 08/754,984

Group Art Unit: 1733

Filed: November 22, 1996

Examiner: F. Lorin

For: **ADHESIVE BONDING SYSTEM FOR BONDING LAMINAE TO FORM A LAMINATE**

I, ANTHONY J. ROSSI, Registration No. 24,053 certify that this correspondence is being deposited with the U.S. Postal Service as First Class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

On July 30, 1998

ANTHONY J. ROSSI Registration No. 24,053

Assistant Commissioner
for Patents
BOX ISSUE FEE
Washington, D.C. 20231

RECEIVED
Publishing Division

AUG 3 1998

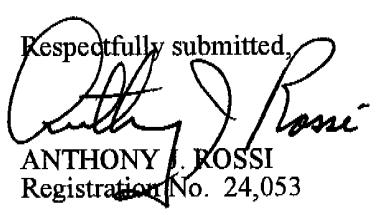
Dear Sir:

11

COMMUNICATION

Applicant became aware of the attached reference less than three (3) months ago, after the issue fee had been paid. This reference resulted from a Supplementary European Search Report dated June 18, 1998. Applicant respectfully requests that this reference be placed in the file of the above-identified application.

Respectfully submitted,


ANTHONY J. ROSSI
Registration No. 24,053

Date: 7-30-98

WOODCOCK WASHBURN KURTZ
MACKIEWICZ & NORRIS LLP
One Liberty Place - 46th Floor
Philadelphia, PA 19103
(215) 568-3100

215-568 3439

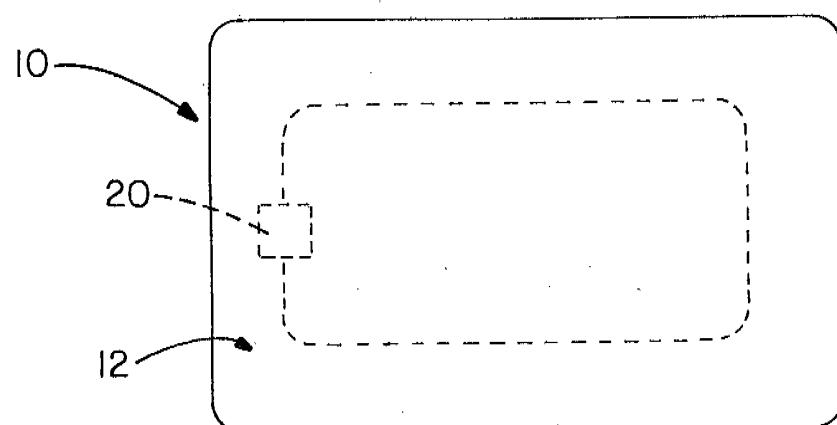
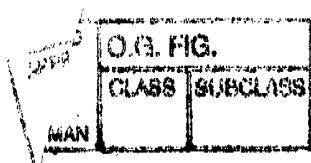


FIG. - 1

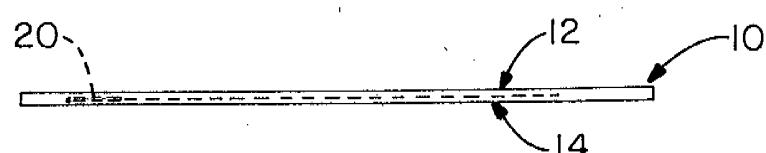


FIG. - 2

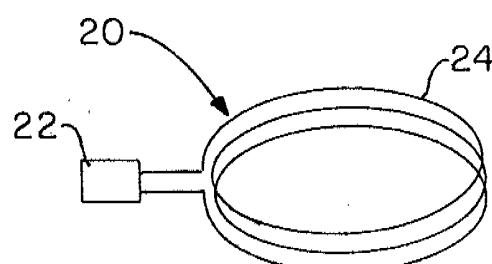


FIG. - 3A

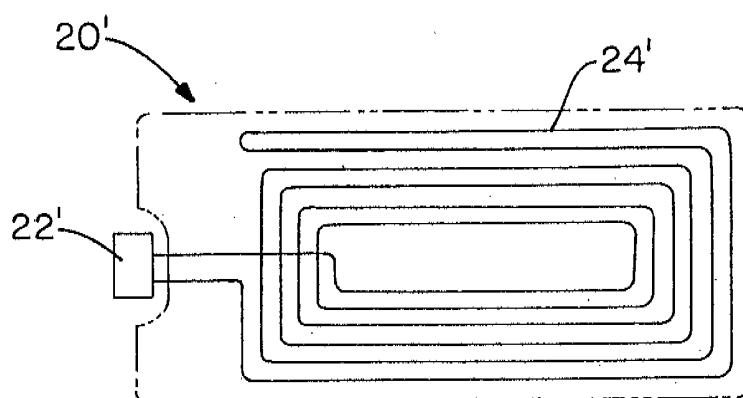


FIG. - 3B

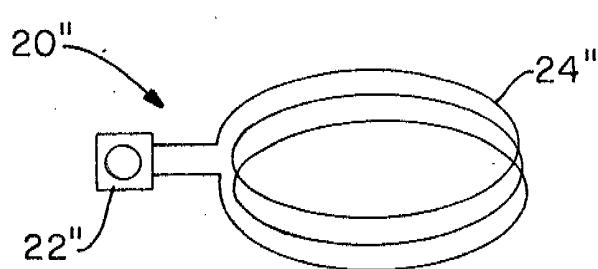


FIG. - 3C

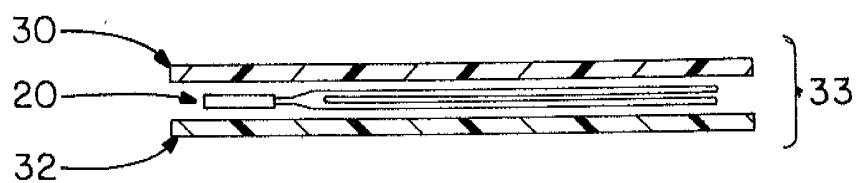
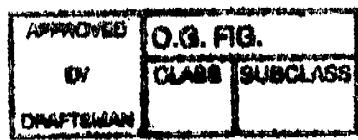


FIG. - 4

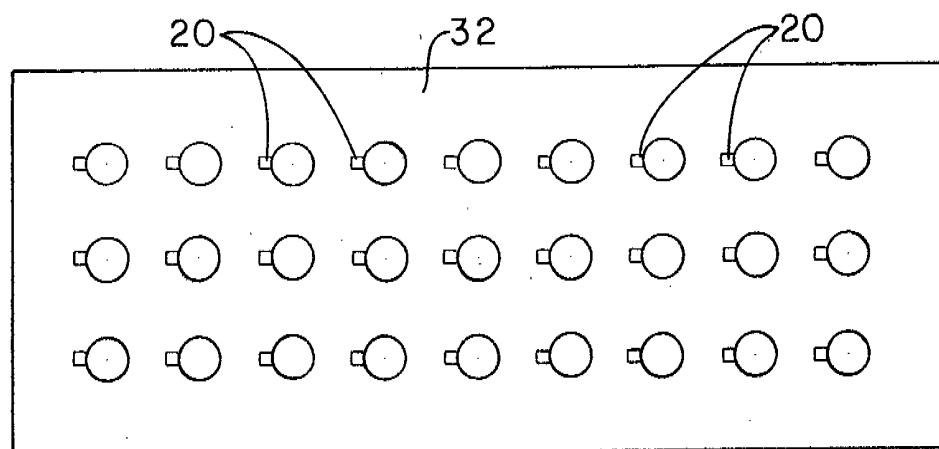


FIG. - 5

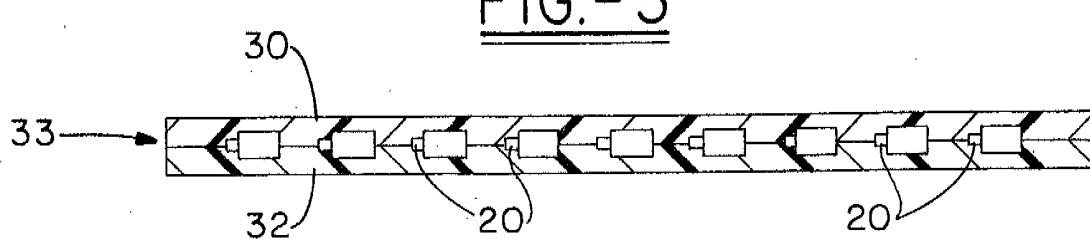


FIG. - 6

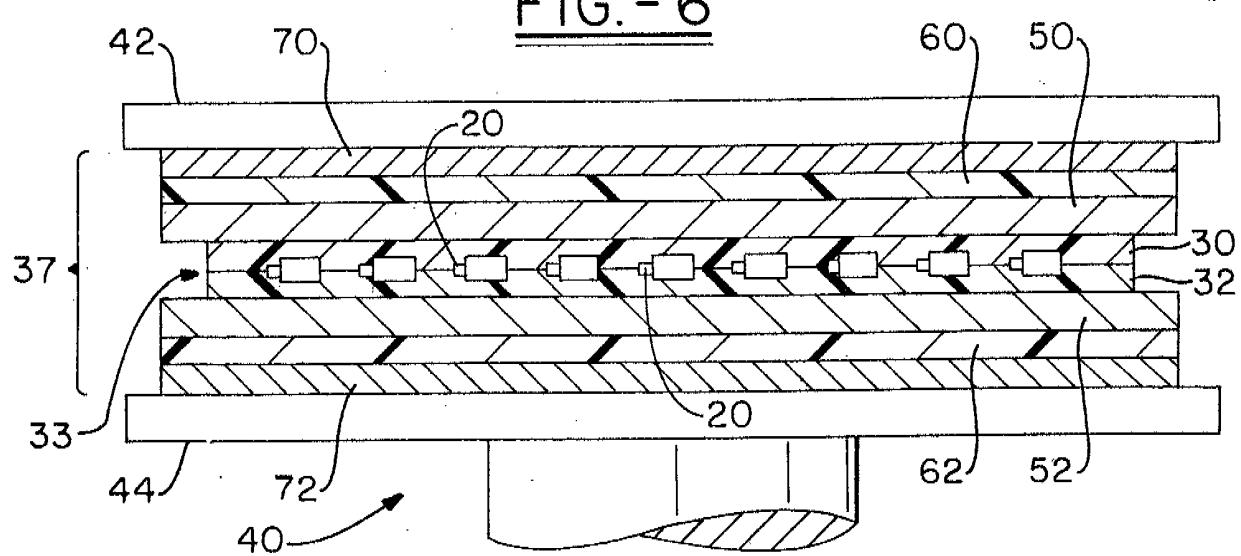
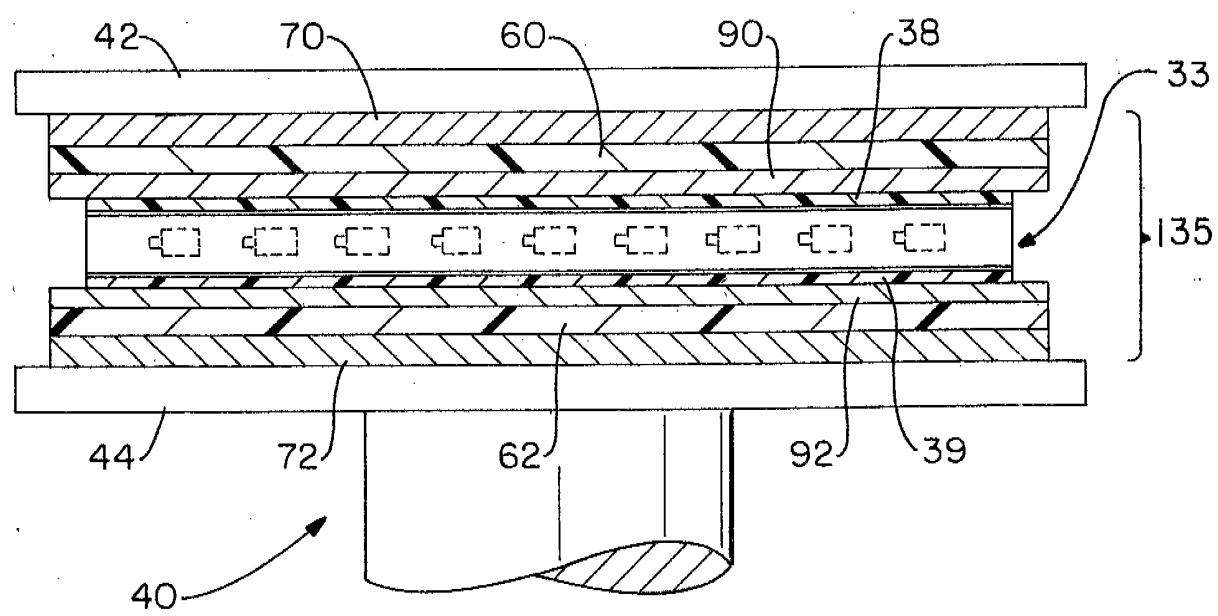
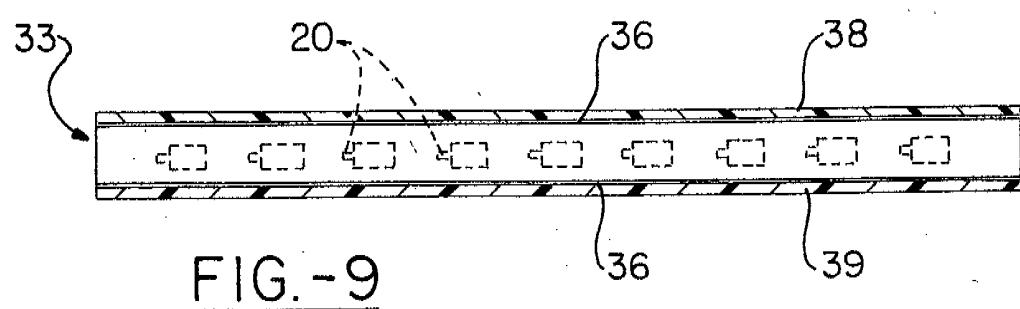
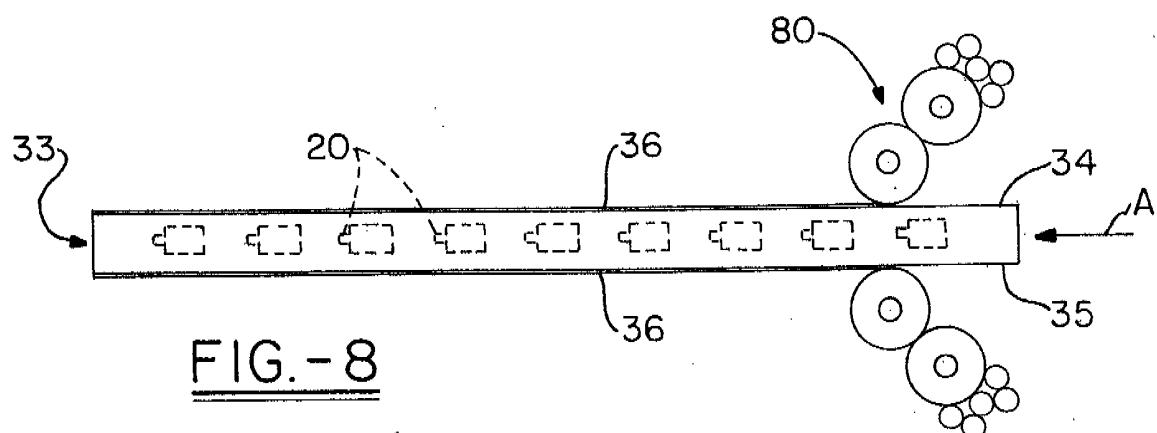
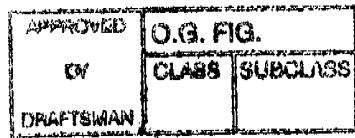


FIG. - 7



The
United
States
of
America



Form PTO-1584 (Rev. 2/97)

PTO UTILITY GRANT

Paper Number 17

The Commissioner of Patents
and Trademarks

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to an statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.

Bruce Lehman
Commissioner of Patents and Trademarks

Attest
Mary H. Green

PATENT APPLICATION FEE DETERMINATION RECORD					Application or Docket Number	
Effective October 1, 1996					727789	
CLAIMS AS FILED - PART I					OTHER THAN SMALL ENTITY	
(Column 1)		(Column 2)		OR		
FOR	NUMBER FILED	NUMBER EXTRA	RATE	FEES	OR	
BASIC FEE				385.00	770.00	
TOTAL CLAIMS	22	minus 20 = * 2	x\$11= 22		x\$22=	
INDEPENDENT CLAIMS	2	minus 3 = *	x40=		x80=	
MULTIPLE DEPENDENT CLAIM PRESENT			+130=		+260=	
					TOTAL 407	TOTAL
* If the difference in column 1 is less than zero, enter "0" in column 2						
CLAIMS AS AMENDED - PART II					OTHER THAN SMALL ENTITY	
(Column 1)		(Column 2)		OR		
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	
Total	* 20	Minus	** 22	=	x\$11=	
Independent	* 3	Minus	*** 3	=	x40=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+130=	
					TOTAL ADDIT. FEE	TOTAL ADDIT. FEE
(Column 1)		(Column 2)		OR		
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	
Total	*	Minus	**	=	x\$11=	
Independent	*	Minus	***	=	x40=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+130=	
					TOTAL ADDIT. FEE	TOTAL ADDIT. FEE
(Column 1)		(Column 2)		OR		
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	
Total	*	Minus	**	=	x\$11=	
Independent	*	Minus	***	=	x40=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+130=	
					TOTAL ADDIT. FEE	TOTAL ADDIT. FEE

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20; enter
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number.

**TOTAL
ADDITIONAL FEE**

TOTAL ADDIT. FEE **OR** **TOTAL ADDIT. FEE**

PAGE DATA ENTRY CODING SHEET

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office1ST EXAMINER **T-J** DATE **12-18-96**
2ND EXAMINER
DATEAPPLICATION **08/727789**TYPE
APPL
1FILING DATE
MONTH DAY YEAR
1 6 6 7 9 6SPECIAL
HANDLING
0CLASS
428DRAWING
6TOTAL
CLAIMS
22INDEPENDENT
CLAIMS
2SMALL
ENTITY?
1FILING FEE
LICENSE
4147FOREIGN
LICENSE
YATTORNEY DOCKET NUMBER
6414-1PARENT DOCKET NUMBER
141795CONT STATUS
CODE
08PARENT APPLICATION
SERIAL NUMBER
6445685PCT APPLICATION SERIAL NUMBER
PCT/1/PARENT PARENT
NUMBER
141795PARENT FILING
MONTH DAY YEAR
1 6 6 7 9 6

CONT STATUS CODE	08	2	6	4	4	5	6	8	5

PCT/FOREIGN APPLICATION DATA

FOREIGN
PRIORITY
CLAIMED
COUNTRY
CODE
PCT/FOREIGN APPLICATION SERIAL NUMBER
FOREIGN
FILING DATE
MONTH DAY YEAR